

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of the	)	WT Docket No. 03-66
Commission's Rules to Facilitate the Provision of Fixed	)	RM-10586
and Mobile Broadband Access, Educational and Other	)	
Advanced Services in the 2150-2162 and 2500-2690	)	
MHz Bands	)	
	)	
Part 1 of the Commission's Rules - Further Competitive	)	WT Docket No. 03-67
Bidding Procedures	)	
	)	
Amendment of Parts 21 and 74 to Enable Multipoint	)	MM Docket No. 97-217
Distribution Service and the Instructional Television	)	
Fixed Service to Engage in Fixed Two-Way	)	
Transmissions	)	
	)	
Amendment of Parts 21 and 74 of the Commission's Rules	)	WT Docket No. 02-68
With Regard to Licensing in the Multipoint Distribution	)	RM-9718
Service and in the Instructional Television Fixed Service	)	
for the Gulf of Mexico	)	
	)	

**OPPOSITION TO PETITIONS FOR RECONSIDERATION**

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## **EXECUTIVE SUMMARY**

The Commission has made great strides to make Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) spectrum more usable and rapidly available for wireless broadband deployments. A number of petitioners, however, have proposed changes to the rules that will reverse direction for the new, flexible regulatory regime for EBS and BRS and will stall or preclude operators like Clearwire from continuing to rapidly deploy wireless broadband service to American consumers. At this critical juncture, the Commission must resist the efforts being made on reconsideration to undermine the Commission’s progress. The Commission must reject the multiple proposals that would make the new Part 27 rules unnecessarily complex, more costly for licensees, and encourage anti-competitive conduct.

Some of the same petitioners that have proposed rule changes that will delay broadband deployment, and increase costs for committed operators like Clearwire to timely introduce wireless broadband service, have stated that they have other regulatory and service priorities and do not intend to utilize EBS and BRS spectrum to deploy wireless broadband systems for years. Many of these same petitioners suggest that the Commission should not require meaningful wireless broadband deployments and substantial service demonstrations for EBS and BRS for 10 years. If Clearwire and other operators are to continue bringing valuable wireless broadband service to American consumers, the Commission must not adopt additional rules and procedures that are intended to delay and complicate wireless broadband deployments. Simply acquiring adequate spectrum to launch service in a market is a significant enough challenge.

The Commission should reject the following proposals as complex, overly restrictive or anti-competitive: (1) substantial expansion of the new rule governing emissions limits to require implementation of more restrictive masks in adjacent markets, upon “request,” even in the

absence of documented interference; (2) amendment of the existing antenna height benchmarking rule to require operators to share with competitors in adjacent GSAs critical competitive information about the location and height of all deployed base stations merely upon “request,” with no evidence of documented interference to adjacent operating systems; (3) repeal or modification of the flexible rule that allows operators to exceed the signal strength limit at GSA boundaries in the absence of neighboring operations, and to require, instead, that first-in-time operators devote time and resources to obtaining the consent of adjacent GSA licensees, whether or not such licensees are operating or are likely to suffer interference; (4) adoption of an elaborate and time consuming procedure for identifying the proponent of a transition in a GSA, and awarding control of the transition to the party with the most spectrum if there is more than one proponent; and (5) prohibition or limitations on wireless broadband deployments prior to a transition and requiring operators to engage in a costly and time-consuming notification and data request process with EBS licensees prior to launch.

These proposals will generally impede the offering of wireless broadband service to the public and depress competition in this important market sector. They are also inconsistent with a flexible regulatory regime which assumes that licensees will respond to documented evidence of interference, and directly negotiate arrangements for interference avoidance, rather than relying upon the Commission to serve as traffic-cop to enforce compliance. With minor exceptions, the new Part 27 rules for EBS and BRS, as written, will assist the industry in timely and effectively deploying next-generation systems over this valuable spectrum, and need not be changed.

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**OPPOSITION TO PETITIONS FOR RECONSIDERATION**

Clearwire Corporation ("Clearwire") opposes certain proposals to reconsider the Commission's *Report and Order* in the above-captioned proceeding<sup>1</sup> as contrary to the Commission's goals for implementing a new, flexible regulatory structure for the Broadband Radio Service ("BRS") and the Educational Broadband Service ("EBS") and streamlining and simplifying the accompanying service rules. The Commission made significant progress toward

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<sup>1</sup> *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165 (2004) ("*Report and Order*" and "*Further Notice*"). All filings submitted on January 10, 2005, in this proceeding will hereinafter be short cited.

implementing these goals in the *Report and Order* and should reject proposals that would reverse these gains, make the new regulatory regime more complex and rigid, and reduce critical operational flexibility for EBS and BRS licensees, particularly those proposals that would unnecessarily amend the rules addressing interference abatement and the transition process.<sup>2</sup>

**I. ADOPTION OF UNNECESSARY RULES AND PROCEDURES FOR RESOLVING POTENTIAL INTERFERENCE BETWEEN SYSTEMS WOULD UNDERMINE THE NEW FLEXIBLE REGULATORY STRUCTURE FOR EBS AND BRS.**

The Commission should reject efforts by WCAI and Nextel to substantially rewrite the new and well-reasoned Part 27 rules addressing interference protection and abatement, including rules for out-of-band emission restrictions, antenna height benchmarking and exceeding signal strength limits at a geographic service area (“GSA”) boundary when no neighboring operations exist.<sup>3</sup> In general, Nextel and WCAI advocate more complicated rules to cover a series of potential interference scenarios rather than relying upon operators themselves to mutually resolve instances of documented interference. The Nextel and WCAI proposals would require

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<sup>2</sup> Clearwire supports the opposition filed by the WCAI with respect to the following issues and will not address those issues here: (1) the deadline for filing initiation plans in rural areas should not be delayed until January 10, 2013; (2) EBS purchase options in the event the eligibility rules change should not be prohibited; (3) the Commission should not require the filing of unredacted copies of EBS capacity leases; (4) additional incremental costs of implementing counterproposals for a transition should be borne by the party submitting the counterproposal; (5) EBS/BRS transition plans should not include plans for relocating EBS and BRS incumbents from spectrum that has been designated for new BRS 1 and 2 as the migration of these channels is occurring because the Commission reaucted BRS spectrum for AWS, and AWS is responsible for relocation of BRS 1 and 2; (6) any upgraded downconverters provided to receive sites in an EBS licensee’s former PSA, outside of the licensee’s new GSA, should not be entitled to interference protection; (7) the Commission should not reinstitute a 15 year maximum term for EBS leases; (8) the minimum educational reservation requirement should not be increased; and (9) service of transition-related documents on the address of record and contact person listed in the Universal Licensing System database should be sufficient.

<sup>3</sup> See generally WCAI Petition at 44-51; Nextel Petition at 23-31.

operational wireless broadband providers to alter their systems based merely upon “requests” from adjacent GSA licensees, or under certain proposed technical scenarios. Such proposals should be rejected as unnecessary, anti-competitive, and harmful to the public interest.

Nextel’s and WCAI’s efforts to add unnecessary interference abatement rules and procedures also conflict with the shared goal of the Commission and the industry to implement more flexible service rules for EBS and BRS. In flexible regulatory regimes, the Commission allows licensees to directly negotiate interference-avoidance arrangements, rather than force licensees to comply with cumbersome Commission-imposed technical rules and procedures.<sup>4</sup> Similar to its approach for other wireless services, the Commission should seek to avoid becoming “a bottleneck in bringing new radio communications services and technologies to the public”<sup>5</sup> for EBS and BRS, and should reject proposals to unnecessarily complicate the new service rules to the detriment of operators like Clearwire that are actively deploying wireless broadband services to the public.

**A. The Commission Should Not Adopt An Expanded, More Complicated Rule Regarding Out-Of-Band Emissions.**

The Commission should reject proposals by Nextel and WCAI to expand substantially new Section 27.53<sup>6</sup> governing emissions limits by requiring implementation of more restrictive

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<sup>4</sup> *Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium*, Policy Statement, 14 FCC Rcd 19868, 19870-71 (1999) (“Another way to allow flexibility in use of the spectrum is to allow licensees to negotiate among themselves arrangements for avoiding interference rather than apply mandatory technical rules to control interference.”).

<sup>5</sup> *Id.* at 19871.

<sup>6</sup> 47 C.F.R. § 27.53.

masks, even in the absence of documented interference.<sup>7</sup> The existing rule adequately protects against documented interference from out-of-band emissions and requires that upon evidence of interference, licensees must work together to resolve interference issues. If no private resolution is reached, then a more restrictive mask must be employed.<sup>8</sup> By abandoning the requirement that interference be documented before requiring more restrictive emissions masks, Nextel's proposed revisions, which are supported by WCAI, will unnecessarily restrict wireless broadband deployments. There is no technical data in the record to support more restrictive masks, and adopting Nextel's proposal will require equipment vendors to meet tighter rejection specifications for all outdoor antennae, with associated cost increases for the industry and consumers.

Clearwire agrees with Nextel, however, that a 60-day time period for interference resolution may help clarify the procedure. The 60-day time period would begin after receipt of a documented interference complaint, and would allow private negotiation of interference resolution. If no private resolution is reached, then the interfering licensee must implement the more restrictive mask, as prescribed by the rule.

Clearwire disagrees with Nextel and WCAI, however, that Section 27.53 should be amended to largely eliminate the requirement for documented evidence of interference and private negotiation to resolve interference before tighter masks are required. Under most scenarios, the Nextel/WCAI proposals require that a potentially impacted licensee merely

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<sup>7</sup> Nextel Petition at 26-30, Appendix A; WCAI Petition at 44-51.

<sup>8</sup> Section 27.53(l)(2) provides attenuation guidelines for fixed digital stations. 47 C.F.R. § 27.53(l)(2). This well-reasoned, market-based rule provides that when a documented interference complaint is received from an adjacent channel licensee, and the parties cannot mutually resolve the complaint, then, depending upon the distance between the stations, one or both licensees will increase their attenuation in order to reduce out-of-band emissions.



“request” implementation of a tighter emissions mask from an operator in a neighboring GSA, or that the tighter mask should be required under certain technical scenarios. By failing to uniformly require documented proof of interference to adjacent systems, Nextel/WCAI acknowledge that forced implementation of tighter masks could be required merely because an adjacent licensee requests it for unspecified reasons, including possible anti-competitive motives. The Nextel/WCAI proposal would undermine the flexible regulatory regime in which licensees are expected to directly negotiate arrangements for interference avoidance rather than require the Commission to serve as traffic-cop to enforce compliance.<sup>9</sup>

The Commission also should reject Nextel’s proposal to amend Section 27.53 because it fails to provide any technical evidence to support more restrictive masks, especially for antennae mounted below 20 feet above ground level (“AGL”). For antennae mounted below 20 feet AGL, emissions will most likely be lost in ground clutter and/or terrain, and the associated losses will greatly reduce the likelihood of interference to neighboring systems. Given the potential statistical insignificance of interference and the negative impact on the industry and consumers due to increased equipment costs, the Commission should not adopt new rules for emissions masks and interference requirements.

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<sup>9</sup> Clearwire agrees with the flexible, market-based approach taken by the Commission for both out-of-band emissions and signal strength limits. Section 27.55(a)(4) allows licensees to exceed signal levels at their GSA boundary where there are no affected licensees in nearby GSAs that are constructed and providing service. 47 C.F.R. § 27.55(a)(4). However, once service is launched in the nearby GSA, the first licensee to launch service must either obtain consent from the affected licensee in the neighboring GSA or take steps to comply with applicable signal strength limits. Section 27.53 correctly adopts this approach for out-of-band emissions.

**B. An Expanded, More Complicated Rule Regarding Antenna Height Benchmarking Is Unnecessary.**

The Commission should reject Nextel's proposed amendments to the existing antenna height benchmarking rule set forth in Section 27.1221.<sup>10</sup> Nextel would require operators to share with competitors in adjacent GSAs all location and height information for deployed base stations in a GSA merely upon "request," without a requirement of documented interference to an adjacent operating system.<sup>11</sup> Nextel would require an operating licensee to reduce its antenna height based upon only a "simulated" interference study.<sup>12</sup> As Section 27.1221 acknowledges, there is no legitimate need for operators to share base station information before base stations are actually deployed in neighboring GSAs.<sup>13</sup> Moreover, requiring system operators to share with all "requesting" adjacent channel licensees critical competitive information about base station' heights and locations could easily lead to anti-competitive abuse of this information.

Clearwire supports the height benchmarking calculation as it was adopted in Section 27.1221. Clearwire requests, however, that the Commission clarify that operators are not required to alter base station antenna heights without documented evidence of impermissible interference. In the *Report and Order*, the Commission made clear that the primary reason for an antenna height benchmarking rule, if one is necessary at all, is the potential for interference. The Commission stated that it is "premature to impose a limit on antenna heights for low-power base stations given that the base stations must comply" with signal strength limits at the GSA

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<sup>10</sup> 47 C.F.R. § 27.1221.

<sup>11</sup> Nextel Petition at 18, Appendix A.

<sup>12</sup> *Id.* at Appendix A.

<sup>13</sup> Section 27.1221 requires "pairs of base stations, one in each of two neighboring services areas" in order to calculate the benchmarks.

boundary.<sup>14</sup> In line-of-sight situations, the Commission agreed that harmful interference in an adjacent area is possible notwithstanding compliance with signal strength limits.<sup>15</sup> The WCAI Coalition proposed a method for determining whether harmful interference could occur due to antenna heights in adjacent markets.<sup>16</sup> But the Commission declined in the *Report and Order* to “impose a limitation on base station antenna heights located near the GSA border [if] they do not cause impermissible interference.”<sup>17</sup> The potential for interference due to antenna heights is the primary problem Section 27.1221 aims to address, but the rule does not make this explicit.<sup>18</sup> Clearwire requests that the Commission clarify Section 27.1221 to provide that operators are not required to alter base station antenna heights without documented evidence of impermissible interference and that operators mutually attempt to resolve such interference before requiring system alterations.

Clearwire also objects to the provision in Nextel’s proposal that would require operators to share with licensees in adjacent GSAs, upon request, information about base station location

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<sup>14</sup> *Report and Order* ¶ 123.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> The rule sets forth a formula for determining whether base stations are entitled to interference protection from operators in neighboring GSAs. Licensees that build systems in compliance with the height benchmarking guidelines are entitled to interference protection from neighboring GSAs. Licensees that do not comply (which should be demonstrated with proof of documented interference), are not guaranteed protection and must take measures to limit interfering signals to the neighboring GSA. Given the potential operational consequences, licensees have sufficient incentive to comply with the existing antenna height benchmarking rule and cooperate with each other.

and height for all base stations in a GSA.<sup>19</sup> Clearwire is not opposed to sharing location and height information for base stations, on a confidential basis, with an independent third party such as a clearinghouse. As Clearwire stated in its Petition for Partial Reconsideration of the *Report and Order*, “[t]he Commission should designate a clearinghouse as the first avenue of recourse for all transition-related disputes, including cost sharing.”<sup>20</sup> Although the ultimate responsibility for making technical changes to base stations and/or executing private coordination agreements rests with licensees/operators,<sup>21</sup> a clearinghouse could maintain a database of all base station deployments and assist the industry by calculating antenna height benchmarks based upon industry-approved models. A clearinghouse also could afford licensees necessary confidentiality in order to protect vital competitive information.

**C. The Commission Properly Allows Licensees To Exceed Signal Strengths At The GSA Boundary Absent Neighboring Operations, And The Rule Should Not Be Changed To Require Consents And Burdensome Procedures.**

The Commission correctly decided that a licensee should be allowed to exceed signal strength limits at its GSA boundary if no affected licensee is providing service in a nearby GSA. Upon commencement of service in an adjacent GSA,<sup>22</sup> Section 27.55(a)(4) requires the licensee that first launched wireless broadband service to take steps to comply with signal strength limits at its GSA boundary, absent consent from the adjacent licensee. Nextel and WCAI oppose this

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<sup>19</sup> Nextel Petition at Appendix A.

<sup>20</sup> Clearwire Petition at 9.

<sup>21</sup> Use of an independent clearinghouse has worked for the PCS industry, which uses the PCIA Microwave Clearinghouse to maintain databases of PCS deployments and cost sharing arrangements, and assists the industry by performing calculations and determining responsibility for cost sharing obligations. The BRS/EBS industry would benefit from the same approach and use of an independent clearinghouse.

<sup>22</sup> 47 C.F.R. § 27.55(a)(4).

flexible approach and propose instead that the Commission permit licensees to exceed maximum signal strengths at GSA boundaries only after obtaining the consent of the affected licensee,<sup>23</sup> regardless of whether the licensee is operating or suffering impermissible interference.

Clearwire opposes a prior consent requirement because, among other things, it would be readily used to delay the build-out of a competitor's system and to increase its costs. In addition, licensees will have at least three years to transition the spectrum to a new band plan, and may have up to 10 years, as many commenters advocate, to demonstrate substantial service over the spectrum.<sup>24</sup> Restricting wireless broadband deployments for possibly extended periods, in the absence of adjacent operating systems, is unwarranted and not in the public interest.

Clearwire also opposes WCAI's alternate proposal that in the absence of repealing Section 27.55(a)(4), the Commission should ensure compliance with the rule by requiring notifications and pledges to immediately bring operations into compliance after an operator in an adjacent GSA begins providing service.<sup>25</sup> These additional procedures are unnecessary and burdensome. As a practical matter, depending upon business priorities and spectrum holdings, operators will in some instances be the first-moving service provider in a region, and in others will be the service provider in an adjacent GSA whose service deployment occurs second-in-time. This mutually dependent environment within which BRS and EBS operators must operate provides sufficient incentive for all licensees/operators to comply with Section 27.55(a)(4) as

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<sup>23</sup> Nextel Petition at 30-31; WCAI Petition at 42-44.

<sup>24</sup> Clearwire advocates for just five years to demonstrate substantial service. *See* Clearwire Comments at 12-18; Clearwire Reply Comments at 2-6 (Feb. 8, 2004).

<sup>25</sup> WCAI Petition at 42-44.

written.<sup>26</sup> Nextel's and WCAI's proposed revisions to Section 27.55(a)(4), which mandate a Commission-imposed consent process and/or Commission-imposed additional procedures to assure compliance with signal strength limits, rather than relying upon market forces, is inconsistent with the flexible regulatory regime the Commission adopted for EBS and BRS.

**II. THE FIRST PARTY TO FILE AN INITIATION PLAN SHOULD BE DEEMED THE PROPONENT; NO ELECTION OR NEGOTIATION PERIODS TO IDENTIFY THE PROPONENT ARE NECESSARY.**

The Commission should reject Nextel's suggestion that the Commission adopt a more elaborate and time consuming procedure for identifying the proponent of a transition in a GSA. Nextel's proposal would delay initiation of a transition by at least four months.<sup>27</sup> The *Report and Order* and Commission rules correctly determine that the proponent will be the first to serve transition notices and file an initiation plan to transition the GSA.<sup>28</sup>

Nextel suggests that the term proponent is not defined, and that the Commission should designate a time period during which parties may declare an intention to serve as a proponent. Nextel's scheme to establish a 30-day period, after the first transition notice is served, during which additional proponents can identify themselves to the first-moving proponent, and then another 90-days during which multiple proponents can attempt to negotiate respective responsibilities for the transition, is overly complicated and will delay the transition process.

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<sup>26</sup> To the extent the Commission adopts rules to utilize a clearinghouse for BRS and EBS, the Clearinghouse can help to serve the function of notifying licensees when service has been launched in a neighboring market and can notify licensees if signal strength limits must be modified.

<sup>27</sup> Nextel Petition at 11-14.

<sup>28</sup> See 47 C.F.R. §§ 27.1231(d), (g); *Report and Order* ¶85.

The Commission's first-in-time rule regarding designation of the proponent is well-reasoned and will serve to expedite transitions and wireless broadband deployments.

The Commission also should reject as anti-competitive Nextel's proposal that the entity with the most licensed and leased spectrum within the transition area should be deemed the sole proponent if multiple proponents cannot agree to serve as co-proponents within 90 days.

Licensees that hold the most spectrum are not necessarily the parties most interested in rapidly and widely deploying broadband services. As the Commission already has recognized, the party that first moves to initiate a transition in a GSA is likely to be the party most interested in rapidly transitioning the spectrum and deploying service in the public interest. The Commission's policy on this issue is correct and should not be reconsidered.

**III. THE COMMISSION SHOULD ENSURE THAT ITS POLICY ON REPLACEMENT DOWNCONVERTERS DOES NOT REQUIRE PROPONENTS TO INCUR UNNECESSARY TRANSITION EXPENSES.**

Clearwire agrees with WCAI and Nextel that the Commission must refine the process for identifying receive sites that are entitled to replacement downconverters in order to ensure that proponents do not incur unnecessary transition expenses.<sup>29</sup> To that end, Clearwire agrees with WCAI and Nextel that responses to pre-transition data requests should be required within 21 days of receiving the data request. In the absence of a timely response, Clearwire agrees with WCAI that the proponent should be entitled to proceed with the transition without: (1) migrating the non-responsive licensee's program track to the MBS, (2) replacing downconverters at the non-responsive licensee's receive sites, and (3) affording interference protection to the non-responsive licensee.

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<sup>29</sup> Nextel Petition at 9; WCAI Petition at 22.

Regardless of whether timely responses to pre-transition data requests are received, all receive sites should not be entitled to automatic replacement of downconverters. In order to prevent abuse and wasted time and financial resources, Section 27.1233(a)<sup>30</sup> should require proponents to purchase and install new downconverters only for those educational institutions that certify that they are actively using distance learning services at the time the data request is received, and whose downconverters meet certain minimum technical criteria as recommended by Nextel and WCAI.

In conjunction with responses to pre-transition data requests, the Commission should require receive site schools / locations to provide a written certification that the receive site is, at the time the data request is received, actively using EBS distance learning services for the permissible purpose of formal education of fulltime students at accredited schools. Receive sites should not be entitled to replacement downconverters absent a certification.<sup>31</sup> Clearwire also agrees with WCAI and Nextel that to avoid protecting EBS receive sites where desired signal levels are already low, the proponent should not be required to provide interference protection to EBS receive site that, prior to a transition, are not receiving a desired signal carrier level of >-80dBm.<sup>32</sup> These protections should assist proponents to transition spectrum quickly and efficiently and avoid wasting critical resources.

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<sup>30</sup> 47 C.F.R. § 27.1233(a).

<sup>31</sup> Letters from receive sites certifying actual use should certify pursuant to Section 27.1203(b) of the rules that EBS spectrum is being used at the time the pre-transition data request is received “to further the educational mission of accredited schools offering formal educational courses to enrolled students.” *Id.* § 27.1203(b).

<sup>32</sup> Nextel Petition at 22; WCAI Petition at 40. Licensees that self transition should have the same obligations to replace downconverters for affected receive sites, subject to the same limitations on required upgrades that are set forth in this section.



#### **IV. WIRELESS BROADBAND DEPLOYMENTS SHOULD NOT BE PROHIBITED OR LIMITED PRIOR TO A TRANSITION.**

The Commission should reject the request of the ITFS/2.5 GHz Mobile Wireless Engineering & Development Alliance, Inc. (“ITFS Alliance”) and the Catholic Television Network & the National ITFS Association (“CTN/NIA”) to prohibit or limit two-way use prior to transitioning to the new band plan based upon potential harmful interference. The ITFS Alliance opposes two-way use of the spectrum prior to transition because it believes it will encourage operators to commence low power operations on a small number of channels and avoid the cost of becoming proponents.<sup>33</sup> CTN/NIA also suggests that operators that launch two-way service before a transition must cure any interference at EBS receive sites within five days of being contacted by the affected party or shut down.<sup>34</sup>

As Clearwire noted in its reply comments to the *Further Notice*, it has launched wireless broadband services over EBS and BRS spectrum, and is serving the public with high-speed wireless Internet access service, in Jacksonville and Daytona Beach, Florida; St. Cloud, Minnesota; and Abilene, Texas. Clearwire is committed to rapidly transitioning the spectrum and widely deploying services, and is not waiting for completion of the transition process to begin serving the public. Clearwire can easily migrate its service from the old band plan to the new band plan in conjunction with transitions. Thus, deploying services pre-transition will not impede or deter transitioning the spectrum. Clearwire will, of course, comply with the Commission’s interference protection requirements and will take every precaution to design and deploy its systems consistent with Commission rules and in a manner that does not unlawfully

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<sup>33</sup> ITFS Alliance Petition at 6.

<sup>34</sup> CTN/NIA Petition at 11-14.

interfere with existing operations of other lawfully operating licensees. Upon a documented interference complaint, Clearwire will take required measures to abate interference caused by it within a reasonable time frame (not five days), provided that the site receiving interference has not deployed inferior or substandard equipment as described above in Section III.

Subject to certification of permissible EBS use by receive sites and evidence of downconverters that meet certain minimum technical standards, Clearwire agrees with Hispanic Information and Telecommunications Network (“HITN”) that one solution for curing interference is for licensees that deploy wireless broadband service prior to the transition to provide, upon documented evidence of such interference, filters at affected existing receive sites that experience actual, documented interference.<sup>35</sup> HITN is correct that claims of predicted interference within a GSA could be used in bad faith to unreasonably obstruct necessary relocations of high-powered stations.<sup>36</sup> Adoption of HITN’s proposal for filters would avoid the need for additional D/U interference protection rules for fixed wireless broadband deployments both before and after the transition.<sup>37</sup>

Finally, the Commission should reject CTN/NIA’s proposal requiring operators that deploy wireless broadband systems prior to a transition to engage in a notification or data request process, before system launch, with all EBS licensees that have overlapping GSAs, or whose receive sites are located within 20 miles of a base station.<sup>38</sup> Under the current, flexible geographic licensing regime, there is no need for operators to engage in time-consuming and

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<sup>35</sup> HITN Petition at 7.

<sup>36</sup> *Id.*

<sup>37</sup> CTN/NIA Petition at 12-13.

<sup>38</sup> *Id.* at 7-9.

burdensome prior notifications, data requests, or applications in order to deploy services.<sup>39</sup> To the extent a wireless broadband system is deployed before a market is transitioned, and documented interference is experienced at a receive site that is entitled to interference protection or replacement downconverters under Section 27.1223(a), as amended,<sup>40</sup> then interference mitigation techniques (including, perhaps, filters) should be employed to cure the interference. Absent documented interference, however, there is no justification for delaying deployment of broadband systems to the public in order to require prior coordination with all EBS licensees and receive sites in the vicinity, especially when many licensees likely will discontinue services in anticipation of the transition.

**V. THE COMMISSION SHOULD NOT ALLOW UNLICENSED UNDERLAY OPERATIONS IN THE 2.5 GHZ BAND.**

Clearwire agrees with Nextel and Grand Wireless that the Commission should reconsider its decision to introduce new unlicensed uses into the 2.5 GHz band.<sup>41</sup> As Nextel explained, BRS and EBS are undergoing a major transition and allowing new, unknown services into the band will further complicate the transition and heighten the risk of future interference.<sup>42</sup> As the Commission has noted in other proceedings, affording underlay rights could detrimentally affect the quality and ability of EBS and BRS operators to build out service, technically constrain deployments, complicate interference problems and negatively impact the flexibility of EBS and

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<sup>39</sup> Clearwire acknowledges that a Commission-mandated system of notifications and data requests will exist as part of a transition to the new band plan. Prior to a transition, in the absence of documented interference, operators should not be required to go through the same burdensome process in order to deploy service.

<sup>40</sup> *See supra* Section III.

<sup>41</sup> Nextel Petition at 22-23; Grand Wireless Petition at 2.

<sup>42</sup> Nextel Petition at 22-23.

BRS licensees for technical innovation.<sup>43</sup> The Commission already has allocated sufficient spectrum for the operation of unlicensed devices.<sup>44</sup> Accordingly, any benefits that may arise from allowing such devices to operate on the 2.5 GHz band are significantly outweighed by the potential interference to EBS and BRS incumbents and the complexities that could be added to the transition process by unlicensed operations.

Furthermore, underlays in EBS and BRS spectrum will interfere with the rights of incumbent licensees in the 2.5 GHz band and undermine the Commission's secondary markets policies.<sup>45</sup> Any rules that allow unlicensed underlay rights in the EBS/BRS band must be subject to the prior consent of incumbent licensees that have the right to control use of all their spectrum,

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<sup>43</sup> See, e.g., *Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands*, 18 FCC Rcd 23318, 23336 (2003) (“[A]n underlay of unlicensed devices here could detrimentally affect the quality, and thus, buildout of service.”). The Commission also declined to adopt underlay rights in the 38 GHz band. It stated, “we agree with the commenters that underlay licensing would be confusing and could undermine the benefits to be derived from providing separate spectrum..., including freedom from technical constraints, avoidance of complicated interference problems and the flexibility for technical innovation. We also find that underlay licensing offers no advantages sufficient to outweigh these concerns. Accordingly, we do not adopt underlay licensing in this Order.” See *Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz, and 48.2-50.2 GHz Frequency Bands*, 13 FCC Rcd 24649, 24663 (1998).

<sup>44</sup> Unlicensed operations have more than 550 MHz of spectrum available below 6 GHz. See *Revision of Parts 2 and 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz band*, 18 FCC Rcd 24484 (2003).

<sup>45</sup> See *Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services*, 19 FCC Rcd 19078, 19161 (2004) (seeking comment on parties' concerns that underlay rights interfere with the Commission's secondary markets policies); *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, 18 FCC Rcd 20604, 20608 (2003) (taking steps to “facilitate and streamline the ability of spectrum users to gain access to licensed spectrum by entering into spectrum leasing arrangements that are suited to the parties' respective needs”).

and to expect that their operations and service to the public will be free from harmful interference.

## VI. CONCLUSION.

The Commission has made great strides in recent years to evolve its spectrum policy toward a more flexible and market-oriented approach that increases opportunities for technological advancements and encourages more efficient use of spectrum.<sup>46</sup> In the *Report and Order*, the Commission implemented these enlightened spectrum policies for EBS and BRS. Clearwire strongly urges the Commission at this juncture to resist efforts to reverse its progress. The Commission must not adopt unnecessary, additional rules and procedures for EBS and BRS that will only complicate and delay transition of the spectrum and deployment of wireless broadband services for American consumers. With relatively minor exceptions, the new Part 27 rules for EBS and BRS, as written, will assist the industry in effectively deploying next-generation systems over this valuable spectrum.

Respectfully submitted,

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February 22, 2005

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<sup>46</sup> Federal Communications Commission, *Spectrum Policy Task Force Report*, ET Docket No. 02-135, at 3 (Nov. 2002).

## **CERTIFICATE OF SERVICE**

I, Theresa Rollins, certify that I have on this 22nd day of February, 2005, had copies of the foregoing **OPPOSITION TO PETITIONS FOR RECONSIDERATION** delivered to the following via electronic mail:

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